Canadian Natural Gas

›› Monthly Market Update

May 2009

›› Oil and Gas Policy, Analysis and Regulatory Affairs Division
Petroleum Resources Branch
Energy Sector

Natural Resources Canada | Ressources naturelles Canada

Canada

Foreword

The Canadian Natural Gas: Monthly Market Update is a monthly analytical paper prepared by the Petroleum Resources Branch of Natural Resources Canada. The report provides the most recently available data on natural gas prices and related fundamentals.

Please direct any comments or questions to Galina Obolenskaia at (613) 995-0422, or by email at gobolens@nrcan.gc.ca

Executive Summary

The natural gas market is a continental market, set by market conditions in the US and Canada. North American natural gas prices are hovering around $3-$4/GJ, down from over $11/GJ last summer. Prices are low both on a per unit of energy basis, and also relative to crude oil prices.

Low gas prices can be attributed to both the global economic recession and surging US natural gas production. There is so much natural gas in the North American market that storage facilities are filling up quickly, drilling is being reduced dramatically, and LNG proponents are contemplating exporting natural gas out of North America.

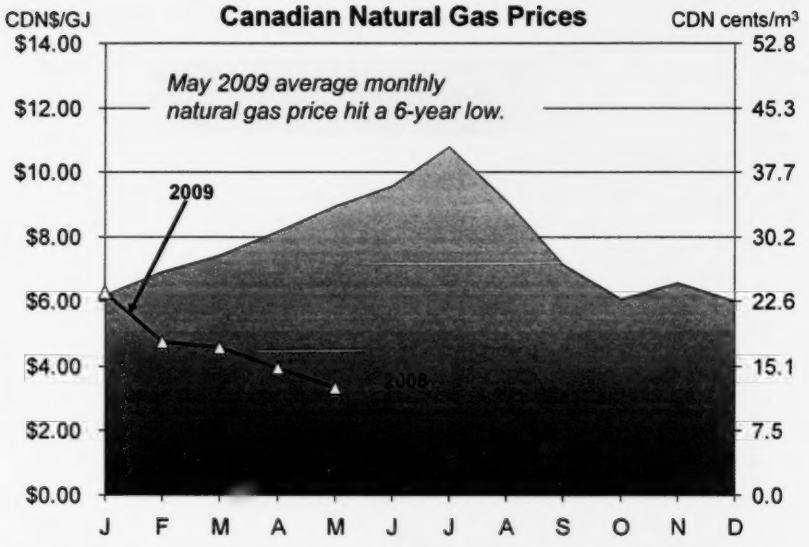
The following chart provides a brief, up-to-date overview of selected natural gas market fundamentals. The chart depicts both absolute values and also percentage changes (given the most recently available data) in natural gas prices, natural gas production, heating degree days, natural gas domestic sales, exports, imports, storage, and drilling.

Natural Gas Market Fundamental	Value	Percentage Change	
		May-09 vs. May-08	May-09 vs. Apr-09
Prices, C $/GJ (May-09)	3.33	-63%	-16%
Heating Degree Days (May-09)	191	-4%	-43%
Production, Bcf (Mar-09)	471	-5%	4%
Sales, Bcf (Mar-09)	267	-9%	-4%
Exports, Bcf (Mar-09)	295	-17%	-4%
Imports, Bcf (Mar-09)	77	1%	0%
Storage, Bcf (May-09)	257	40%	31%
Drilling, wells (May-09)	266	-55%	-55%

Note: GJ: Gigajoule; Bcf: Billion Cubic Feet

Sources:
- *Crude Oil and Natural Gas (Preliminary)*, Statistics Canada
- *Natural Gas Transportation and Distribution, 55-002*, Statistics Canada
- *Supply and Disposition of Crude Oil and Natural Gas, 26-006*, Statistics Canada
- *Drilling Highlights*, Daily Oil Bulletin website: www.dailyoilbulletin.com
- Canadian Natural Gas Focus, GLJ Energy Publications Inc.
- *Natural Gas Storage Survey*, Canadian Enerdata Ltd.
- *Natural Gas Export Statistics*, National Energy Board website: www.neb-one.gc.ca
- Canadian Gas Association, website: www.cga.ca

Figure 1

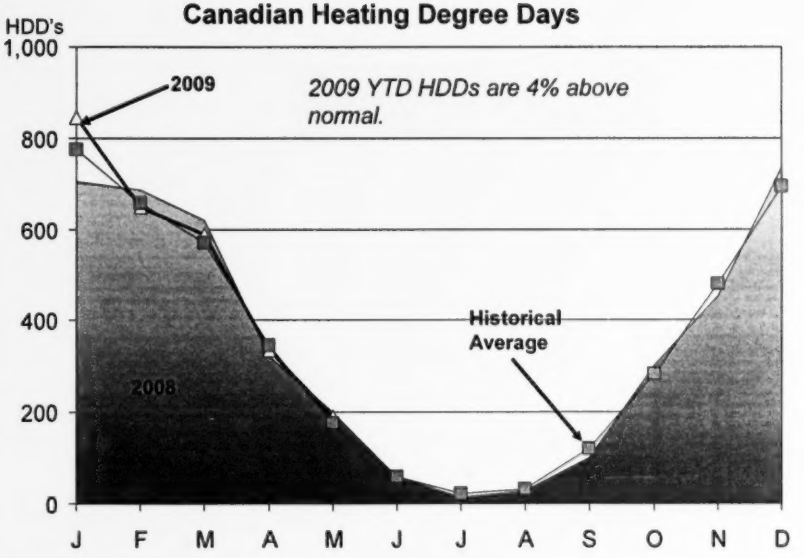


Source: GLJ Energy Publications **Note:** Canadian price is the Alberta price at the AECO hub.

Figure 1 illustrates the price of natural gas at the major Canadian pricing point – the Intra-Alberta market, a.k.a. AECO . The price is for gas delivered under a 30-day contract. The Intra-Alberta market is formed by gas delivered to pipelines in Alberta. Gas changes hands via Nova Inventory Transfers (NIT), exchanges at the AECO storage hub, or sales facilitated by the Natural Gas Exchange (NGX). This is a commodity price – a wholesale price in the producing area. Consumer (or "burner tip") prices will also include pipeline transmission and distribution costs, which vary across Canada. Natural gas is commonly measured in gigajoules (GJ) or cubic metres. A gigajoule is an energy unit, which equates to about 27 cubic metres of natural gas.

AECO natural gas prices averaged CDN $3.33/GJ in May 2009, 16% lower than the previous month and 63% lower than May 2008.

Figure 2



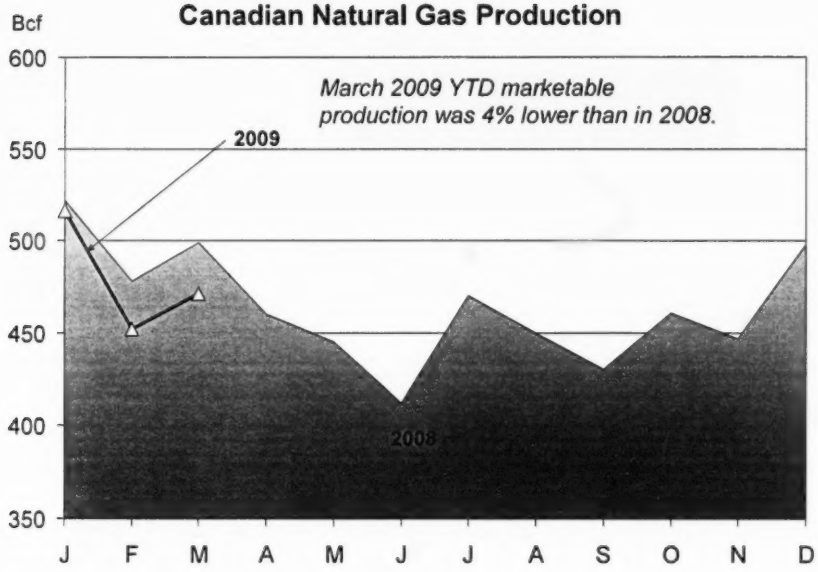
Source: Canadian Gas Association, NRCan

Figure 2 shows Canadian heating degree days (HDDs), which are a measure of how cold it is. The more HDDs in any season, the greater is natural gas demand for space heating. If a winter is unusually cold, demand for space heating will respond accordingly and natural gas prices will tend to be stronger. However, during a mild winter, natural gas demand for space heating will be weaker, which will tend to moderate prices.

In May 2009, there were 191 HDDs, 4% less than May 2008. On average, May 2009 was 9% warmer than normal.

Figure 3

Canadian Natural Gas Production



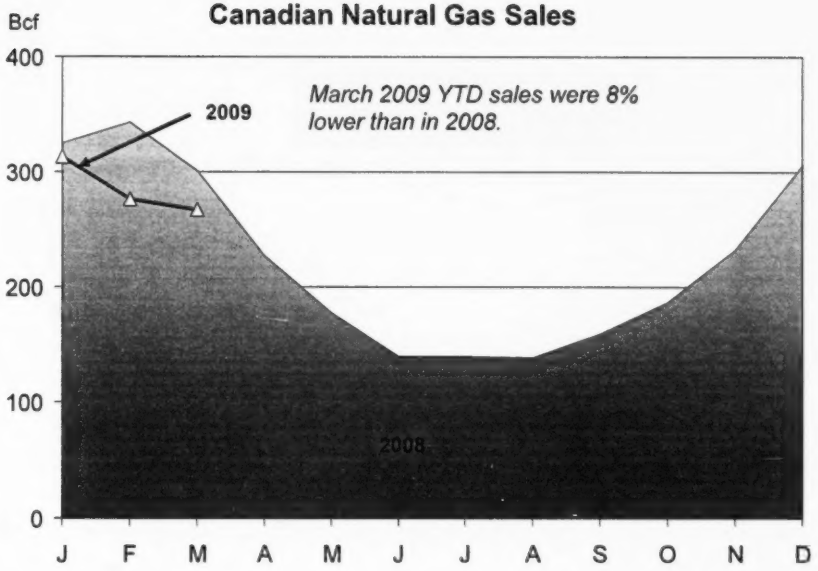
Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 3 shows marketable natural gas production in Canada. Marketable natural gas is the gas available for consumption after processing and excludes producer or plant uses.

Marketable natural gas production for March 2009 was 471 Bcf, 5% lower than March 2008.

Figure 4

Canadian Natural Gas Sales



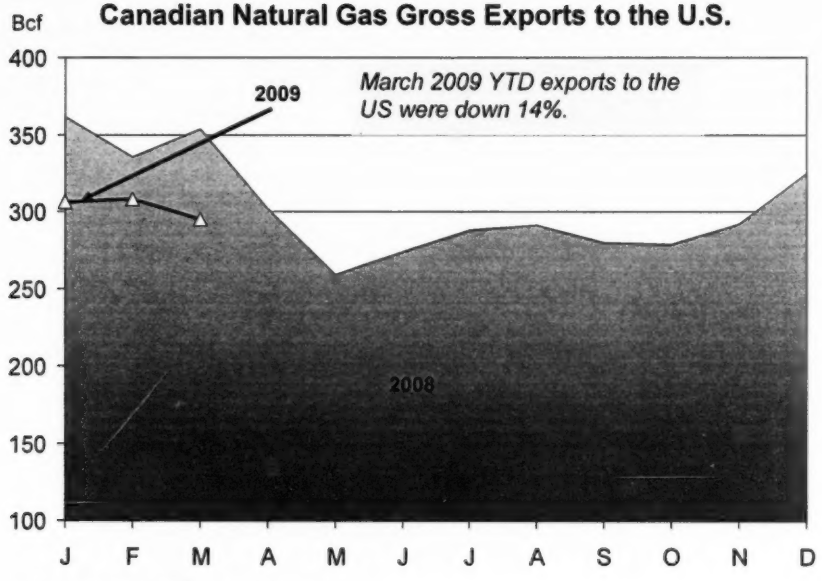
Source: Statistics Canada **Note:** Most recent month is a preliminary figure.

Figure 4 illustrates total Canadian natural gas sales. Sales include all natural gas sold to residential and commercial users (for space and water heating, cooking, etc), industries and electricity generating units in Canada. The totals do not include consumption by the natural gas industry itself (e.g., pipeline compressor fuel).

Natural gas sales to Canadian consumers in March 2009 were 267 Bcf, 9% less than March 2008.

Figure 5

Canadian Natural Gas Gross Exports to the U.S.



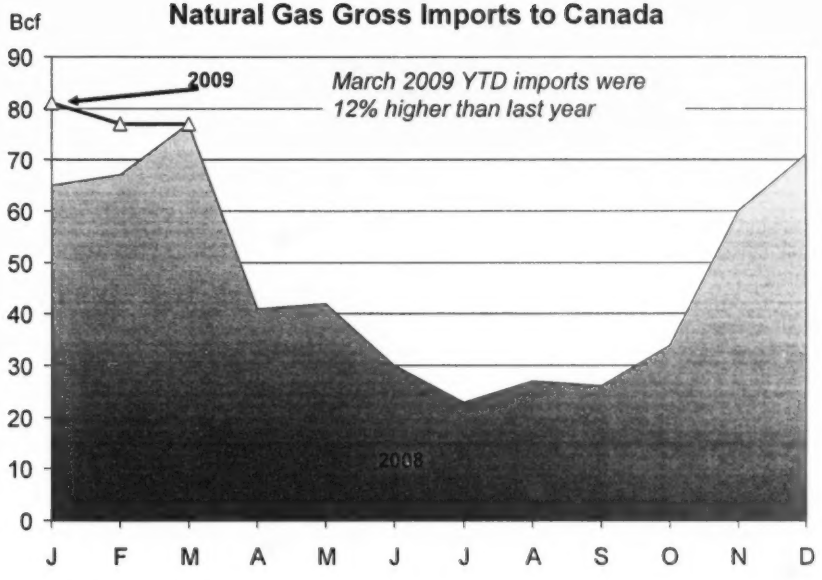
Source: National Energy Board

Figure 5 illustrates natural gas exports to the U.S. Canadian natural gas requirements are met mostly by domestic sources, as Canada produces natural gas in excess of what is required for domestic consumption. In comparison, the U.S. consumes more natural gas than it produces, therefore natural gas imports are required to make up the difference. Typically, Canada exports between 50 and 60 per cent of its gas production.

In March 2009, natural gas exports to the U.S. were 295 Bcf, 17% lower than March 2008.

Figure 6

Natural Gas Gross Imports to Canada



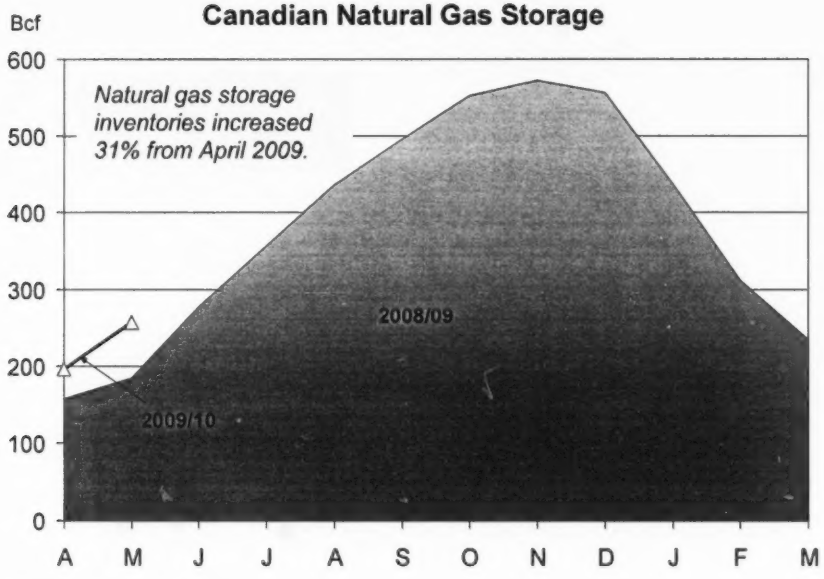
Source: National Energy Board

Figure 6 illustrates natural gas imports to Canada. Most natural gas is imported into Canada through major import points in southern Ontario. Imports into southern Ontario will likely rise in the future, as the province purchases more gas from the rest of North America due to flat production in the Western Canadian Sedimentary Basin. Presently, import volumes are significantly less than export volumes, and Canada remains a net exporter of natural gas.

In March 2009, natural gas imports to Canada were 77 Bcf, 1% higher than March 2008.

Figure 7

Canadian Natural Gas Storage



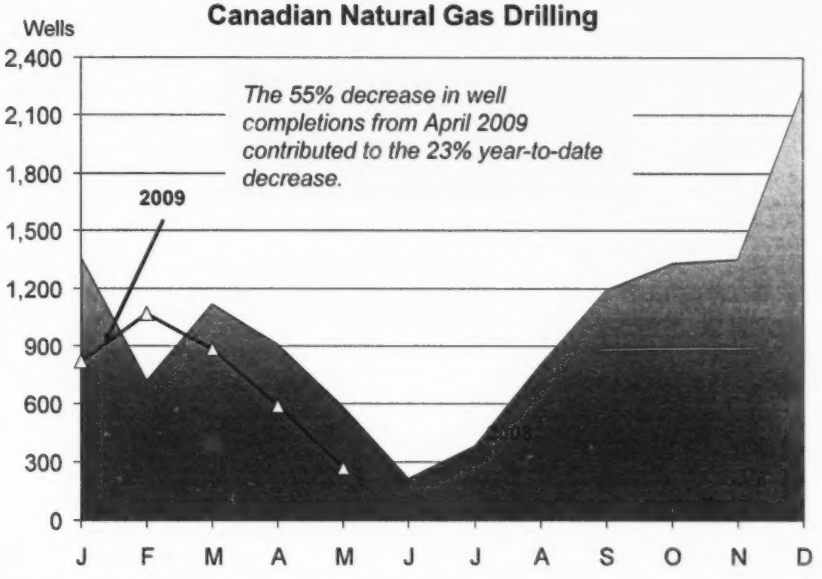
Source: Canadian Enerdata

Figure 7 illustrates natural gas storage levels in Canada. The amount of gas in storage generally follows a seasonal pattern. In the summer, when natural gas demand is low, gas is injected into storage. Storage volumes peak in the fall. In winter, volumes are drawn down, reaching a low point in the spring.

Canadian natural gas storage inventories increased 60 Bcf during the month of April 2009. Storage levels at the beginning of May 2009 were 257 Bcf, 40% higher than the year prior.

Figure 8

Canadian Natural Gas Drilling



Source: Daily Oil Bulletin

Figure 8 depicts the number of natural gas well completions in Canada. There is a time-lag between drilling a gas well and starting production, due to the work necessary to connect the new well to the pipeline grid. Drilling is therefore a good indicator of future natural gas supply.

There were 266 natural gas wells drilled in May 2009, a decrease of 55% from May 2008.